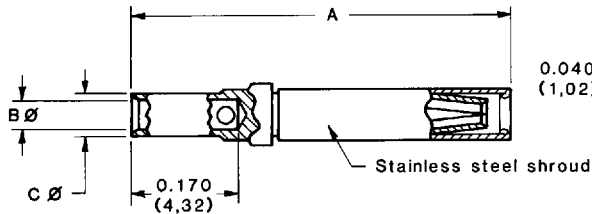


### CRIMP CONTACTS

#### CLOSED CRIMP BARREL

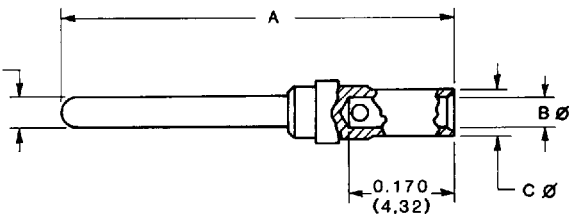
FEMALE CONTACT ("CLOSED ENTRY" DESIGN)



Material - Leaded nickel copper.  
 Plating - 0.000030 inch (0,75 $\mu$ ) gold over nickel or 0.000050 inch (1,25 $\mu$ ) gold over copper for military specification contacts.

PART NO.	WIRE SIZE AWG/(mm <sup>2</sup> )	A	B $\varnothing$	C $\varnothing$
FC6020D-14	20/22/24 (0,5/0,3/0,25)	0.538 (13,67)	0.044 (1,12)	0.066 (1,68)
M39029/63-368	20/22/24 (0,5/0,3/0,25)	0.538 (13,67)	0.044 (1,12)	0.066 (1,68)

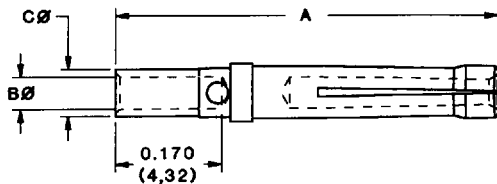
MALE CONTACT



Material - Brass.  
 Plating - 0.000030 inch (0,75 $\mu$ ) gold over nickel or 0.000050 inch (1,25 $\mu$ ) gold over copper for military specification contacts.

PART NO.	WIRE SIZE AWG/(mm <sup>2</sup> )	A	B $\varnothing$	C $\varnothing$
MC6020D-14	20/22/24 (0,5/0,3/0,25)	0.550 (13,97)	0.044 (1,12)	0.066 (1,68)
M39029/64-368	20/22/24 (0,5/0,3/0,25)	0.550 (13,97)	0.044 (1,12)	0.066 (1,68)

FEMALE CONTACT ("ROBI-D OPEN ENTRY" DESIGN)

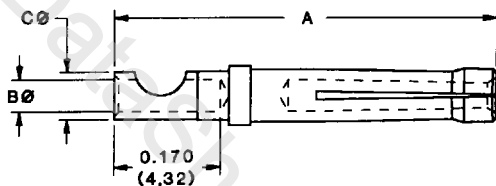


Material - Phosphor bronze.  
 Plating - 0.000030 inch (0,75 $\mu$ ) gold over nickel.

PART NO.	WIRE SIZE AWG/(mm <sup>2</sup> )	A	B $\varnothing$	C $\varnothing$
FC6520D-14	20/22/24 (0,5/0,3/0,25)	0.538 (13,67)	0.044 (1,12)	0.066 (1,68)

### SOLDER CUP REMOVABLE CONTACTS

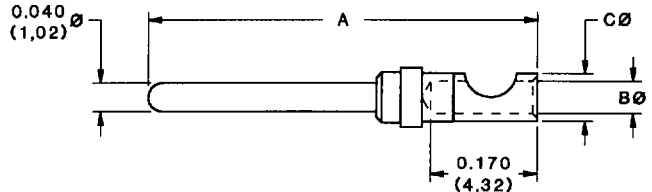
FEMALE CONTACT ("ROBI-D OPEN ENTRY" DESIGN)



Material - Phosphor bronze.  
 Plating - 0.000030 inch (0,75 $\mu$ ) gold over nickel.

PART NO.	WIRE SIZE AWG/(mm <sup>2</sup> )	A	B $\varnothing$	C $\varnothing$
FS6520D-14	20/22/24 (0,5/0,3/0,25)	0.538 (13,67)	0.044 (1,12)	0.066 (1,68)

MALE CONTACT



Material - Brass.  
 Plating - 0.000030 inch (0,75 $\mu$ ) gold over nickel.

PART NO.	WIRE SIZE AWG/(mm <sup>2</sup> )	A	B $\varnothing$	C $\varnothing$
MS6520D-14	20/22/24 (0,5/0,3/0,25)	0.550 (13,97)	0.044 (1,12)	0.066 (1,68)

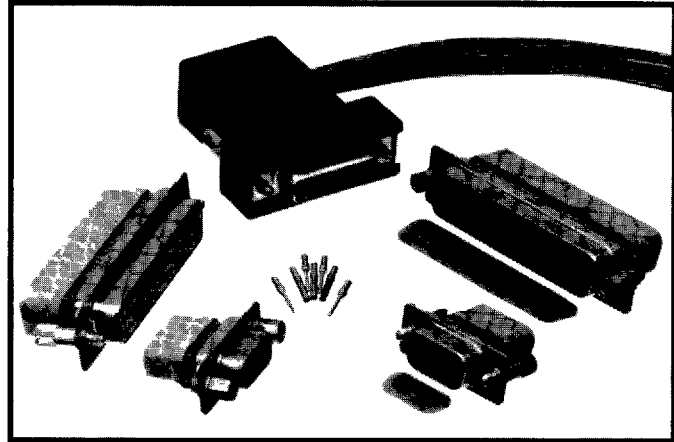
DIMENSIONS ARE IN INCHES (MILLIMETERS)  
 ALL DIMENSIONS SUBJECT TO CHANGE

**Environmental-D  
Series**

**MILITARY QUALITY, REMOVABLE CONTACT,  
SUBMINIATURE-D CONNECTORS  
FOR MILITARY AND SEVERE INDUSTRIAL ENVIRONMENTAL APPLICATIONS**

**Size 20 Contacts  
Solder and Crimp  
Removable**

**Military Quality and  
Severe Industrial  
Environmental Applications**



Environmental-D Series connectors were designed specifically for severe environmental applications where the connector may be subjected to high humidity conditions, rain and/or immersed in water or organic liquids. Environmental protection of the connector is provided by the fluorosilicone grommet, interfacial seal and bonded connector components.

The connectors and contacts are compatible with

MIL-C-24308 and MIL-C-39029.

EVD Series connectors utilize precision machined contacts with closed crimp barrel terminations and solder wire terminations. Female contacts are of closed entry design featuring a stainless steel shroud or an "open entry" Robi-D design. Cable support and locking system accessories are available.

**ENVIRONMENTAL-D SERIES TECHNICAL CHARACTERISTICS**

**MATERIALS AND FINISHES:**

**Insulator:** Glass filled DAP per MIL-M-14 type SDG-F, UL 94V-0, green color.

**Contacts:** Male contacts-precision machined brass alloy. Female contacts - precision machined high tensile copper alloy with stainless steel shroud or Robi-D "open entry" style.

**Contact Plating:** Military performance - 0.000050 inch (1.25 microns) gold over copper plate. Industrial performance - 0.000030 inch (0.75 microns) gold over nickel.

**Shells:** Steel or brass with zinc plate with dichromate seal and stainless steel, passivated.

**Mounting Spacers:** Steel or brass, zinc plate with dichromate seal.

**Jackscrew Systems:** Steel with zinc plate and dichromate seal and stainless steel, passivated.

**Hoods:** Composite.

**Grommet and Interfacial Seal:** Fluorosilicone Rubber per MIL-R-25988.

**Bonding Material:** Fluorosilicone based sealant/adhesive.

**Sealing Plug:** Teflon.

**ELECTRICAL CHARACTERISTICS:**

Dry Conditions, Basic Connector Body:

**Contact Current Rating:** 7.5 amperes, nominal.

**Initial Contact Resistance:** 0.005 ohms maximum.

**Proof Voltage:** 1000 V r.m.s.

**Insulator Resistance:** 5 G ohms.

**Clearance and Creepage Distance (minimum):** 0.039 inch (1.0 mm).

**Working Voltage:** 300 V r.m.s.

**MECHANICAL CHARACTERISTICS:**

**Removable Contacts:** Insert contact to rear face of insulator and release from rear face of insulator. Size 20 contact, male - 0.040 inch (1.0 mm) diameter; female - closed entry design with stainless steel shroud or Robi-D "open entry" style.

**Contact Retention in Insulator:** 9 lbs. (40 N).

**Contact Terminations:** Closed barrel crimp, wire sizes 20 AWG (0.5 mm<sup>2</sup>) through 24 AWG (0.25 mm<sup>2</sup>); Solder contacts - 0.042 inch (1.06 mm) minimum hole diameter for 20 AWG (0.5 mm<sup>2</sup>) through 24 AWG (0.25 mm<sup>2</sup>) wire size.

**Polarization:** Trapezoidally shaped shells.

**Locking Systems:** Jackscrews.

**Mechanical Operations:** 500 operations minimum per IEC 512-5.

**ENVIRONMENTAL CHARACTERISTICS:**

EVD Connectors, having crimp contacts, meet all of the applicable requirements of MIL-C-24308 in addition to the requirements shown below:

<b>Test</b>	<b>Requirements</b>
<b>Humidity Per MIL-STD 1344, Method 1002.2, Type II.</b>	1) No deterioration of performance. 2) Insulation resistance greater than 100 megaohms. 3) Withstand a potential of 1000 VAC (rms) without evidence of flashover or breakdown.
<b>Fluid Immersion Per MIL-STD 1344, Method 1016.</b>	1) No detrimental damage. 2) Meet mating and unmating requirements of MIL-C-24308.
<b>Immersion, 2 hours at a depth of 36 inch (914.4 mm) in mated condition per MIL-STD 810 Method 512.3. Procedure 1.</b>	While Immersed: 1) Insulation resistance greater than 100 megaohms. 2) Withstand a potential of 1000 VAC (rms) without evidence of flashover or breakdown.
<b>Temperature Range:</b>	-55°C to +125°C.



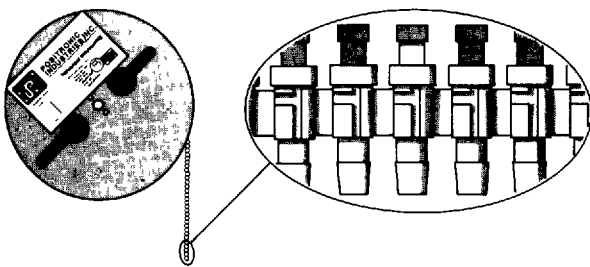
## CONTACTS ORDERED SEPARATELY

Contacts may be ordered separately by specifying the appropriate catalog part number and quantity. See page 25 for part numbers.

In addition, these contacts may be ordered in reels of 2,000 contacts for use with the Positronic automatic feed pneumatic crimp tool. The same carrier type is used for both male and female contacts.

To order contacts in reels, add the letter "R" after the contact part number. Example: MC6020DR-14 (male contact) and FC6020DR-14 (female contact).

The catalog part number of the Positronic automatic feed pneumatic crimp tool is 9550-1.



Enlarged section of plastic contact carriers

